

REMARKS

The courtesies extended to the undersigned by Examiner Scott Haugland during the interview held March 16, 2006 in the subject U.S. patent application are acknowledged and appreciated. During that interview, a proposed amended claim 1 was presented for the Examiner's review. As set forth in the Interview Summary, that proposed amended claim 1 was deemed, by the Examiner, as raising new issues which would require additional searching. In response, there is being concurrently filed herewith a Request for Continued Examination or RCE. It is believed that the claims now pending in the subject application are patentable over the prior art cited and relied on for the reasons presented during the interview, and as set forth below. Reexamination and reconsideration of the claims is respectfully requested.

As discussed with Examiner Haugland during the interview, as set forth and depicted in the subject U.S. patent application, and as recited in the claims, the subject invention is directed to a device that is intended to be used to draw in leading ends of continuous paper webs in a web-fed rotary printing press. While it is acknowledged that the preamble of the claims is not a positive limitation, it does set forth the environment in which a specific invention is intended to be used. It is not appropriate to select a device from a different environment and to assert that it could perform the structure of the disclosed and claimed invention, in the absence of some specific teaching or suggestion that the reference device could be used for such a purpose.

As discussed with Examiner Haugland, a plurality of paper webs 05, 06, 07 are drawn into a printing press by the use of a paper web traction means. The webs first pass over a roller, generally at 16, as seen in Fig. 1, and then are longitudinally formed

as they pass down along a former 21, as seen in Figs. 1 and 2 until they are longitudinally folded by the cooperating folding roller pair 26 and 28. In one embodiment of the disclosed device, which embodiment is not the subject of the claims pending in the subject U.S. application, the finite length paper web traction means is an endless belt or belts 33 and 36, as seen in Figs. 1 and 2, which pass across the surface of the former 21. Once the draw-in of the leading ends of the web has been completed, in the embodiment depicted in Figs. 1 and 2, a portion of the paper web traction means is provided without paper web engaging means or spikes 35. The spike-free portion is made to overlie the former after draw-in of the paper web has been accomplished.

In the embodiment of the disclosed invention, to which the claims currently pending in the subject application are directed, the paper web traction means is physically moved between a web draw-in position and a second position that is out of the path of travel of the paper web or webs. This embodiment of the subject invention is shown most clearly in Fig. 21, taken in conjunction with Figs. 11 and 33. The finite length paper web traction means is provided with a plurality of spaced paper web engaging means. As seen in Fig. 21, these web engaging means are spikes 35 which are spaced along the length of the finite length paper web traction means, which could be a roller chain of the type depicted in Fig. 8. The spikes 35 are able to impale the leading portion of an endless or continuous web or webs of material to be printed in the printing press as that web or those webs are drawn in over a roller, generally at 16, as is also shown in Fig. 21.

In contrast to the prior embodiment, which was discussed above, in the claimed embodiment of the subject invention the finite length paper web traction means is moved

toward and away from the paper webs. During draw-in, the spikes impale the leading ends of the endless or continuous paper webs and draw them to the folding rollers located at the end of the former. Once this web draw-in is completed, and assuming that the web does not break during normal press operation, the finite length paper web traction means is physically moved out of the path of travel of the paper web or webs.

Referring now to Figs. 11 and 12, and the discussion at paragraph 102 of the specification, the finite length traction means 33, 34 or the like can be placed in guides 88. Such a guide 88 is shown in Fig. 21 as part of a guide rail assembly, generally at 171. The guide rail assembly includes the guide 88 and a guide rail support 220. The guide rail support 220 is supported by a pair of guide rods 221 and 222 that pass through suitable guide blocks 223 and 224. These guide rods 221 and 222 are connected to movable pistons which are part of hydraulic or pneumatic piston and cylinder assemblies 218 and 219.

In operation, the guide support, generally at 220 is moved, by actuation of the piston and cylinder assemblies 218 and 219 between the draw-in position depicted in Fig. 21, and a position, not shown in which the guide rail support 220 is moved away from the hopper or former insertion plate 21, which movement away from the former insertion plate 21 would be to the right, as seen in Fig. 1. When the guide rail support and the guide, with its paper web traction means, is in the web draw-in position adjacent the folder insertion plate 21, as depicted in Fig. 21, the spikes 35, which will impale the leading ends of the paper webs, are situated where they could interfere with the roller 16. To prevent this potential interference or engagement of the spikes 35 with the roller 16, that roller 16 is provided with a passage on its surface. As may be seen in Fig. 33,

the roller 16, which is the lower roller depicted in Fig. 33, is provided with a passage. The size and the location of the passage are selected so that the spikes 35 on the finite length paper web traction means will pass through the passage in the roller. This is necessary so that the spikes of the paper web traction means can engage and can penetrate the leading ends of the paper webs, as those leading ends arrive at the roller, which preceeds the former insertion plate 21.

In the Final Office Action of December 23, 2005 in the subject patent application, the drawings were objected to as failing to show every feature of the invention specified in the claims. It was asserted that the finite length guide having a portion pivotable out of the running path of the finite length paper web traction means, as recited in claim 2, was not shown. In response, claim 2 has been cancelled. It is believed that the cancellation of claim 2 overcomes the objection to the drawings.

Claims 2 and 3 were objected to under 35 USC 112, first paragraph as failing to comply with the written description requirement. In response, claim 3 has also been cancelled. It is believed that the cancellation of claim 3, together with the cancellation of claim 2 overcomes the rejection of these claims.

Claim 5 was rejected under 35 USC 112, second paragraph as being indefinite. In response, claim 5 has been amended. It is believed that claim 5, as amended complies with 35 USC 112, second paragraph and that it particularly points out, and definitely claims the subject matter which applicant regards as the invention.

Claims 1-3, 5 and 6 were rejected under 35 USC 102(b) as being anticipated by U.S. patent No. 5,030,193 to Breton. It was asserted that Breton discloses a device for drawing paper webs through a process apparatus, which device includes a roller 228, as

seen in Fig. 17, a finite length paper web traction means 168, having web engaging means 173, a passage 236 for receipt of the paper web engaging means, a finite length guide 268, 270, 272 and means supporting the guide support for movement with respect to the roller. It was further asserted that Breton is capable of drawing in paper webs in a web-fed printing press.

As discussed during the interview of March 16, 2006, and for the reasons set forth below, it is believed that the prior art Breton device does not anticipate, or render obvious the structure of the subject invention, as recited in previously presented claim 1 and even more clearly as set forth in currently amended claim 1. The two devices use different structures to accomplish different results.

Initially, the Examiner's assertion that the Breton device could be used to draw in a paper web in a web-fed printing press is strenuously disagreed with. There is absolutely no teaching, or suggestion in Breton of such a use. The Examiner's statement is not supported by any teaching, or suggestion in the reference.

Breton is directed to a folding apparatus that is used to fold previously printed webs into folded products which may have as many as three sequentially formed fold lines. As seen in Fig. 10 of Breton, a web 40 enters the apparatus at the upper left, by passing over a former bound 44. That former bound 44 of Breton is equivalent in function to the hopper or former insertion plate 21 of the subject invention. The web 40 in the Breton device is provided with a first longitudinal fold 32, as seen in Fig. 2, and is then cut transversely into individual signatures by the cooperative action of a cutting cylinder 74 and a folding blade cylinder 52.

A second folder assembly is provided generally at 72, as also shown in Fig. 10 of

Breton. This includes the folding blade cylinder 52 and a folding jaw cylinder 80. The longitudinally folded, transversely cut signatures are transversely folded, to provide the second fold 34, depicted in Fig. 5, by operation of this second folding assembly 78.

Once the signatures have received their second fold, they are carried to a divert gate at 88, also as may be seen in Fig. 10. At the divert gate 88, the twice folded signatures can be fed to a delivery wheel 92 and to a belt conveyor 94. Alternatively, the twice folded products can be directed to a third folder assembly, generally at 86. The third folder assembly forms the third fold, 36 and 38, as shown in Fig. 6.

Referring now to Fig. 15, the third folder assembly 86 has a wide inlet 134 and a pair of formers 162 and 164. Their purpose is to receive a generally flat, twice folded signature, as seen in Fig. 5, and to change it into the thrice folded product shown in Fig. 6. As the twice folded signature enters the wide inlet, its sides are received between the spaced rails which form both of the formers 162 and 164. A plurality of spaced tapes 124 and 152 are used to transport the twice folded signatures. Note the discussion starting at Column 7, line 46 and continuing through Column 8. These arrays of tapes, as may also be seen in Fig. 16, move the signatures from left to right in the formers 162 and 164, as seen in Fig. 15,

Referring to Figs. 16 and 17, it will be seen that the two formers 162 and 164 converge, as the twice folded signatures travel through the third folder 86 from left to right, as seen in Fig. 15. This folds the free ends of the twice folded signatures toward each other to thereby form the third fold lines 36 and 38. An upper creaser belt 168 and a lower creaser belt 170 are located in the longitudinal center of the two formers 162 and 164. These cooperate to form the third fold 36 or 38 in the product.

As seen in Figs. 16 and 17, the upper creaser belt 168 is driven by upper pulley wheels 268 and 272. The folded product transporting tapes 220, 226; 222, 226, as seen in Fig. 17, pass between a pair of spaced rollers 224 and 228. The upper roller has a central channel 234 and the lower roller has a cooperatively positioned central channel 236. The upper creaser belt 168 passes through the channel 234 in the upper roller 224. The lower creaser belt 170 passes through the channel 236 in the lower roller 228. A discussion of this structure is set forth at Column 9, starting at line 5.

The upper creaser belt 168 is provided with a tapered nose 174. This cooperates with a longitudinally extending groove 176 in the lower creaser belt 170. The purpose of this cooperation is to maintain the desired crease, which will become the third fold line 36 or 38, in the center of the twice folded signature as it is provided with its third fold in the third folder assembly 86.

As depicted in dashed lines in Fig. 14 the folder assembly 86 is movable between an operative position and a jam clearing position. In the jam clearing position, the folder assembly can be pivoted upwardly about a pivot assertion 308, as seen in Fig. 14. When the folder assembly 86 has been moved to the raised, jam clearing position, the outlet end 136 of the folder is accessible to allow a jam to be cleared. In this position, the various upper and lower drive belts no longer engage each other and twice folded signatures are not moved through the third folder 86.

A complete reading of the cited Breton reference makes it clear that this device does not anticipate, or render obvious the subject invention, as recited in currently amended claim 1. At the risk of belaboring a point, Breton is not directed to, and would not be usable as a web draw-in device. The portion of the structure of the Breton device

relied on in the Office Action is used with discrete cut and twice folded signatures. The third folder 86 of Breton receives the twice folded signatures and further processes them to form thrice folded products. One looking for a draw-in device, that could be used to feed a leading end of a continuous web, or of a group of continuous webs through a printing press, only during the starting of the operation of the press; i.e. during web draw-in, would find no usable teachings in the folding apparatus taught by Breton. That device is directed to a folder which is usable to form three folds sequentially in signatures which were cut from a printed web. The second and third folds are formed only after the web has been cut into individual web segments or signatures.

The roller 228 shown in Fig. 17 of Breton is a traction roller for tape drives which move the individual twice folded signatures through the third fold former 168. It is not a paper web guide roller. The asserted paper web traction means 168 is, in fact, an upper creaser belt which cooperates with a lower creaser belt 170. It does not exert a traction force on the twice folded signatures. That force is applied by the spaced upper and lower tapes 124 and 152. While the upper creaser belt 168 does have a twice folded signature engaging tapered nose 174, that nose is not intended to pass through paper webs as those webs are engaged by the paper web traction means to draw the web into the web-fed printing press. The tapered nose 174 has only one function, which is to cooperate with a longitudinally extending groove 176 in the lower creaser belt 170 to maintain a crease in the already twice folded signature during the formation of the third fold in the signatures.

In the subject invention, as recited in currently amended claim 1, the finite length guide for the traction means is supported by a guide support. That guide support can be

moved to move it and the finite length guide that is carried between a web leading end draw-in position and a completion of web draw-in position. In the Breton device, an upper element of the third folder assembly, generally at 86, can be pivoted about a pivot point 308, as depicted in Fig. 14. This pivotal motion separates the two components of the former from each other so that the upper tapes on the upper portion of the two formers 162 and 164 can not contact each other and can no longer drive the twice folded signatures through the third folding assembly 86.

In currently amended claim 1 the finite length paper traction means is used to draw in leading ends of continuous paper webs, not to feed twice folded, individual signatures to a third folder. In claim 1, it is recited that the traction means includes a plurality of spaced paper web engaging means, which are adapted to pass through the webs. This is not the same as an endless belt with a tapered nose that engages a groove in a second endless belt. Claim 1 recites a passage in a roller for receipt of the plurality of spaced paper web engaging means. This is not the same as a roller with an aperture that receives a tapered nose of an endless creasing belt. Claim 1 recites a finite length guide for the traction means and a support for the guide. The third folder of Breton does not show, or suggest an equivalent structure. Claim 1 further recites a means for supporting the guide support so that the guide support and the finite length guide can be moved to position the paper web traction means, with the plurality of spaced, paper web engaging means adjacent the roller during web leading end draw-in; and to move the web guide and the traction means, with its spaced, paper web engaging means away from the roller at the completion of the web draw-in. The prior art Breton device does not show or suggest this structure or function. Accordingly, it is believed that

claim 1, as currently amended, is patentable over the prior art Breton reference.

Claims 5 and 6 depend from believed allowable, currently amended claim 1.

These claims are thus also believed to be allowable.

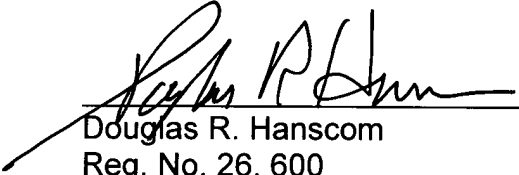
SUMMARY

Claims 1 and 5 have been amended. Claim 6 is carried forward. Claims 2 and 3 are currently cancelled. Claims 4 and 7 were previously cancelled. It is believed that the claims, as set forth in the present Amendment, which is being filed with a Request for Continued Examination, are patentable over the prior art cited and relied on by the Examiner in their rejection. Allowance of the claims, and passage of the application to issue is respectfully requested.

Respectfully submitted,

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